

**A**s the corrugated packaging market continues to demand ever higher print quality from boxmakers, small defects that would once have been ignored by print buyers are now catching their eye. One of the most common causes of such defects is the hickey – a dust or fibre particle that sticks to a flexo printing plate (stereo/cliché) and stops the ink reaching the board surface. While dust removal systems and sheet cleaners may help, once such particles get onto a plate the operator only has two choices — either to ignore the hickey and risk

a customer complaint, or to stop the printing machine and clean the plate, which hits productivity.


“Not so long ago you wouldn’t get a customer complaint about a problem with a single box, but that has changed,” says Ian Nelson, Operations Manager at DS Smith Packaging’s state of the art plant in Fordham, Cambridgeshire, England.” It’s why everything we do is now geared towards trying to provide the perfect case every time.”

This drive to constantly raise the quality of print is a group wide initiative for DS Smith Packaging

# KLEENPLATE™

DS SMITH PACKAGING FINDS NEW ‘HICKEY’ REMOVAL SYSTEM A MAJOR AID TO PRODUCTIVITY.

## HITS THE SPOT



A KleenWipe™ cloth lasts 2-3 days at Fordham.

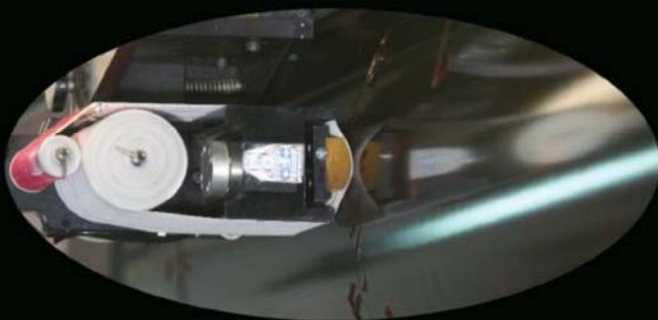


# Beauty Starts with a KleenPlate.™

Clean Plates... Clean Sheets... Kleen Printing.

## Continuous Hickey Removal System.

- ▶ Eliminates stoppages for Plate Washing.
- ▶ Reduces Hickeys by up to 95%.
- ▶ More Available Production Time for any Flexo Printing.



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KleenPlate is patented. The word KleenPlate is a trademark of JB Machinery, Inc.



Typical 'hickey' problem.



Problem solved.

and means each plant is looking at every issue that could possibly impact on quality. Along with every other corrugated plant in the industry, Fordham has to contend with the age-old problem of hickeys and Mr Nelson says that, as a Group, DS Smith Packaging has looked at several solutions. "For example, we've tried dust extraction systems, but for us at Fordham they've never been particularly useful because we don't get a lot of dust as such. The problems we get tend to come from odd fibres dislodging from the edge of the board — and the brushes on dust extraction and sheet cleaner systems can actually make the problem worse by forcing them to dislodge."

As far as Fordham is concerned, the solution to hickeys has come in the form of JB Machinery's new KleenPlate™ system, which continuously removes fibres and dust from the printing plates without the need to stop the printing machine. "We looked at several possible alternatives," says Mr Nelson, "and KleenPlate seemed like it would be right for us. Before we installed it there were some jobs, particularly those with big areas of block print, where we would have to stop and clean the printing plates after running just a few hundred sheets. The

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KleenPlate system looked like it would do the job and we calculated the return on investment would be under a year, so it seemed well worth trying."

Having had the system installed on two units of the plant's Göpfert Evolution rotary die-cutter, the team at Fordham were keen to see how well it would work. "The first job we put on was a Post Office mailer box that has big blocks of red print on it. Before we had the KleenPlate system on the machine, we always had to stop and clean the red plate every six to eight

hundred sheets. With the system installed we ran an entire 6,500 sheet order without having to stop once. It probably saved us an hour and a half on that run of the job alone."

**Versatile system**

The KleenPlate™ system consists of a control unit plus a number of driven heads, one of which is fitted into each print unit where hickey cleaning is required. Each head continuously traverses the printing plate, pressing a special lint-free material against it and removing any hickeys or debris just prior to the plate receiving its fresh charge of ink from the anilox roll. The system can be quickly and easily set up to cover either the entire plate or to concentrate on particular



Ian Nelson

areas. "We tend to set up zones for it to clean because there often won't be a single colour across the whole plate," explains Mr Nelson. "We can set up to four zones for each job and then we save the parameters in the system so we can recall them the next time that job runs."

While the KleenPlate™ system at DS Smith Packaging, Fordham, is on a Göpfert, Warren Bird, Vice President of JB Machinery, says that it can be integrated into any of the major brands of flexo, even those with inter-station driers. "We have designed KleenPlate™ so it can boost the up-time and productivity of almost any machine, whether it is just being installed or it is already in operation. By helping box makers print continuously from break to break without stopping to wash plates because of hickies, plugging or bridging, it not only delivers more square meters per open hour, but also dramatically slashes waste levels."

Mr Nelson says that at Fordham, while the system is not used on every job, it has had a major effect on those with large areas of block print. "On average we probably use the system on a couple of jobs a day, and the results have all been similar to the very first one we put on. It saves us a huge amount of time on those jobs and it doesn't affect our running speeds or our set times. It's very easy and quick to set and, if it's a new job, the operators will start the run without it, because there will be no hickies on the new plate, then once they are underway they will programme in the KleenPlate, so it doesn't add to the set time at all."

The operators say that on average they only change the special lint-free cleaning material, which runs around the KleenPlate™ head, once every two or



**KleenPlate™ system is quick and easy to set.**

three days, although this depends on how much block print the plant puts through the machine. Changing the cleaning cloth takes only a minute or so, they say.

The system also has a useful spot hickey removal facility, which means

that the operator can select a specific area on the printing plate to clean. This is useful for persistent hickies and Mr Nelson says that the operators have started to use the spot clean function even on jobs without block coverage. "It might be a three or four colour job, but if it's on the right colour they can use the KleenPlate™ spot function to get rid of it without stopping the machine."

Mr Nelson says that initiatives like the installation of KleenPlate™ go hand in hand with the work DS Smith Packaging is doing with its customers. "Our designers suggest to customers any changes that they can make at their end that will enable us to make a better box for them. It might be the structural design or elements of the graphics, but small changes can have a big effect on the final product."

Just a few months into having the KleenPlate™ system installed, Mr Nelson is yet to revise his return on investment calculation but is certain that when he does it will be faster than his original estimate. "Obviously it depends on how much block work we get in, but it's clear to me from the first couple of months that the system is doing what we believed it would. We installed KleenPlate on two of the five print units because those are the units we tend to run block print on. Now we've seen the benefits we're considering adding it to other units on the machine." ■

